

## IN THE CLAIMS:

- 10/2/06  
9/4/06  
my
- 9/4/06  
we
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we
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my
1. (Currently amended) An electronically tuned circuit, comprising a power amplifier, coupled to provide amplified signal to an electronically tunable output network, said power amplifier capable of being operated in a large-signal mode, said output network including an electronically tunable reactive component, a control line, and a control input, wherein said control input is connected to a time varying tuning input signal, wherein electronic tuning of said electronically tunable reactive component includes non-motor operated electronic tuning when said power amplifier is operated in said large-signal mode, wherein said control line extends to said electronically tunable reactive component for providing a control signal derived from said time varying tuning input signal, wherein said control signal varies over more than two values for electronically varying reactance of said electronically tunable reactive component over more than two values, wherein said time varying tuning input signal is independent of a signal said amplified signal by said power amplifier.

not derived from said amplifier output.

2. (Previously presented) An electronically tuned circuit as in claim 1, wherein said varying reactance of said electronically tunable reactive component tunes said output network to a selected frequency.
3. (Previously presented) An electronically tuned circuit as in claim 1, wherein said varying reactance of said electronically tunable reactive component tunes said output network to maintain a match between said output network and a varying load impedance.
4. (Previously presented) An electronically tuned circuit as in claim 1, wherein said varying reactance of said electronically tunable reactive component adds modulation to a large signal in said output network.

amplifier  
having an output wherein said  
output is  
not derived from said amplifier output

40. (Currently amended) An electronically tuned circuit comprising:

*having an output*

(a) means for power amplifying, wherein said means for power amplifying comprises a large-signal mode; and

(b) means for electronic tuning of said means for power amplifying when said means for power amplifying is operating in said large signal mode, wherein said means for electronic tuning is coupled to said means for power amplifying for receiving an amplified signal, wherein said means for electronic tuning comprises an electronically tunable reactive component, a control line, and a control input, said control input available for connection from external to said means for electronic tuning, further wherein said control input is connected to a time varying <sup>non-DC</sup> tuning input signal, wherein said electronically tunable reactive component includes non-motor operated electronic tuning, wherein said control line extends to said electronically tunable reactive component for providing a control signal derived from said time varying <sup>non-DC</sup> tuning input signal, wherein said control signal varies over more than two values for electronically varying reactance of said electronically tunable reactive component over more than two values, wherein said time varying <sup>non-DC</sup> tuning input signal is independent of a ~~signal said amplified signal by said power amplifier.~~ *means for amplifying*

*not derived from said ~~amplified~~ output*

41. (Previously presented) An electronically tuned circuit as in claim 40, wherein said means for power amplifying operates in class E and said electronic-tuning means is capable of being tuned to provide a reactance for optimum class-E operation for a selected frequency.

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mjs

- 1 56. (Currently amended) An electronically tuned circuit, comprising one or more power  
2 amplifiers, wherein said power amplifiers are capable of operating in a large-signal  
3 mode, further wherein said one or more power amplifiers has an output network for  
4 receiving an amplified signal, said output network including a tuning input, anetwork  
5 output, an electronically tunable reactive component, a control line, wherein said  
6 tuning input is connected to a time varying tuning input signal, wherein electronic  
7 tuning of said electronically tunable reactive component includes non-motor  
8 operated electronic tuning when said one or more power amplifiers are operating in  
9 said large-signal mode, wherein said control line extends to said electronically  
10 tunable reactive component for providing a control signal derived from said time  
11 varying tuning input signal, wherein said control signal varies over more than two  
12 values for electronically varying reactance of said electronically tunable reactive  
13 component over more than two values, wherein said time varying tuning input signal  
14 is independent of a signal ~~said amplified signal~~ by said power amplifier.  
not derived from said amplifiers output.
- 1 57. (Previously presented) An electronically tuned circuit as in claim 56, wherein said  
2 varying reactance of said electronically tunable reactive component tunes said output  
3 network to a fixed or variable frequency.
- 1 58. (Previously presented) An electronically tuned circuit as in claim 56, wherein said  
2 varying reactance of said electronically tunable reactive component tunes said output  
3 network to maintain a match with a varying load impedance at said network output.
- 1 59. (Previously presented) An electronically tuned circuit as in claim 56, wherein said  
2 varying reactance of said electronically tunable reactive component adds modulation  
3 to a large signal in said output network.

*Examiner Shingleton - here are the corrections*

Application/Control Number: 09/610,933  
Art Unit: 2817

*James Leas*  
*802 864-1575* Page 2

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jimmy Leas on September 2006.

In claim 1, line 1 after "power amplifier" the following has been added -having an output wherein *amplifier* ✓  
*amplifier*  
said output is--

In claim 1 line 12 "time varying tuning" has been changed to read -time varying non-DC tuning-- ✓  
*also in claim 1 line 5 add non-DC*

In claim 1, line 13 beginning with the word independent the word independent has been deleted along with all that follows and the following has been put in place thereof -not derived from said amplifier output-- ✓

In claim 40 line 5 after "power *amplifying*" ~~amplifier~~ the following has been added - having an output-- ✓

In claim 40 line 15 "time varying tuning" has been changed to read -time varying non-DC tuning-- ✓

In claim 40 line 19 "time varying tuning" has been changed to read -time varying non-DC tuning-- ✓

In claim 40 line 22 "time varying tuning" has been changed to read -time varying non-DC tuning-- ✓

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Art Unit: 2817

In claim 48 line 5 "time varying tuning" has been changed to read -time varying non-DC tuning-- ✓

In claim 40, line 22 beginning with the word independent the word independent has been deleted along with all that follows and the following has been put in place thereof -not derived from said *means for amplifying amplifier output--* ✓

In claim 56 line 2 after "power amplifier" the following has been added - having an output-- ✓

In claim 56 line 6 "time varying tuning" has been changed to read -time varying non-DC tuning-- ✓

*claim 56 line 4 last word change "a network" to "a network" ✓*

In claim 56 line 11 "time varying tuning" has been changed to read -time varying non-DC tuning-- ✓

In claim 56 line 13 "time varying tuning" has been changed to read -time varying non-DC tuning-- ✓

In claim 56, line 14 beginning with the word independent the word independent has been deleted along with all that follows and the following has been put in place thereof -not derived from said amplifier output-- ✓

The following is an examiner's statement of reasons for allowance: The prior art of record fails to disclose or suggest a time varying non-DC tuning signal. Not at best the Bosse reference includes a time varying DC tuning signal (Note that the column 2 around line 54 that states a varying DC tuning signal.).